

## *City Service Area* **Environmental and Utility Services**

***Mission:*** Provide environmental leadership through policy development, program design and reliable utility services.

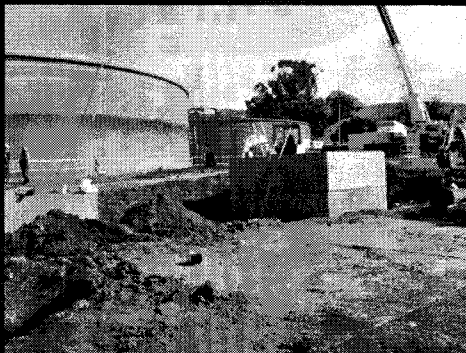
In 2004-2005, the Water Pollution Control Plant awarded the \$89 million Reliability Improvements Project. Construction began in April 2005 and is scheduled for completion in 2007-2008. In total, these improvements will increase peak flow capacity to 400 million gallons per day. Other projects currently underway include a study to address the Plant's aging electrical system and implementation of alternative disinfection treatment.

The South Bay Water Recycling Program awarded construction of 2,800 feet of 20-inch water main that will loop recycled water through the City of Santa Clara. Nearing completion are two water tanks with a storage capacity of 5.5 million gallons and the construction of 5,000 feet of 24-inch transmission water main. Water Utility System projects in the Proposed CIP include the construction of new facilities, maintenance of existing infrastructure, and improvements to facilities. This includes the replacement of 2,400 feet of water mains in old Evergreen neighborhoods, installation of over 4,000 feet of pipeline in North San Jose, and water valve rehabilitation.

The Storm Sewer is implementing a strategy to replace or rehabilitate the oldest and least reliable pump stations and storm outfalls. The program is also broadening its scope from enhancing drainage capacity to address the drainage needs along special corridors, such as residential neighborhoods, safe routes to school, and neighborhood business districts. The Sanitary Sewer Program will continue its sewer rehabilitation program efforts in neighborhood sewer collection systems.



**Rincon Storm System Pump  
Station, Phase II**



**South Bay Water Recycling  
Program  
New Reservoirs**

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### **CSA CAPITAL PROGRAMS**

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- Sanitary Sewer System Capital Program
- Storm Sewer System Capital Program
- Water Pollution Control Capital Program
- Water Utility System Capital Program

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## **Recent Accomplishments**

- Completed the following projects:  
East San Jose Phase III,  
Lincoln/Willow Sanitary Sewer  
Rehabilitation, San Tomas Aquino  
Creek Trunk Phase III, Blackford  
Storm Drain Improvements,  
Albany-Kiely Storm Drain  
Improvements, Willow Glen  
Storm Pump Station, Remington  
Drive Main Replacement, Taffy  
Drive Main Replacement, North  
First Street Parallel Main  
Replacement Phase II, Edenvale  
Well #4, and the Gold Street Main  
Relocation.
- Attained 50% completion status  
for the \$89 million Plant Reliability  
Construction project which  
continues to track several months  
ahead of schedule.
- Substantial completion of the 60-  
inch Sewer Replacement Phase 1B,  
substantial progress in the  
construction of the 84-inch RCP  
Rehabilitation Phase V1B.
- Completion of the North Coyote  
Valley Water System, including 3  
wells to supply MEC and other  
developments.

## **Program Highlights**

### **Sanitary Sewer System Capital Program**

2007-2011 Proposed CIP: \$112.9 million

#### **Neighborhood Sanitary Sewer Rehabilitation Projects:**

- Almaden Road, Alum Rock Avenue, Julian-Sunol Area,  
Monterey-Riverside and Union/Almaden Oak.

#### **Sanitary Sewer Interceptor/Capacity Improvement Projects:**

- Fourth Interceptor Phase VI and VII
- 84" RCP Interceptor Rehabilitation project
- Edenvale Supplement Phase VA and VB

### **Storm Sewer System Capital Program**

2007-2011 Proposed CIP: \$11.8 million

- Albany-Kiely Storm Drain Improvement - Phases III and IV
- Chateau Drive Storm Drain Improvement, Phase II
- Storm Drainage Improvements – Special Corridors
- Storm Pump Station Rehabilitation and Replacements
- Willow Glen-Guadalupe - Phase III

### **Water Pollution Control Capital Program**

2007-2011 Proposed CIP: \$238.1 million

- Alternative Disinfection Facilities Construction
- Electrical Reliability Improvements
- Development of Bio-Solids Master Plan

### **Water Utility System Capital Program**

2007-2011 Proposed CIP: \$25.6 million

- Forestwood Drive Main Replacement
- Water Valve Rehabilitation
- Reservoir System Seismic Retrofit
- North First Street Parallel Main Phase III

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## **CSA OUTCOMES**

**(Supported by the Capital Programs)**

- ✓ Reliable Utility Infrastructure
- ✓ Healthy Streams, Rivers, Marsh and Bay
- ✓ Safe, Reliable and Sufficient Water Supply

# City Service Area Environmental and Utility Services

## Performance Measures

San José's approach to capital project delivery has transitioned from a department level delivery system to a City Service Area (CSA) delivery system during the last few years. A set of consistent and comprehensive performance measurements along with targets and goals have been established for the entire capital program and adopted for each individual CSA. Measures have been established for four key areas: schedule (cycle time), cost, quality, and customer satisfaction. Please see the Budget Guide section narrative for additional information on capital performance measurements.

### *Outcome: Quality CIP Projects Delivered On-Time and On-Budget*

5 Year Strategic Goals		2007-2011 5-yr Goal	2005-2006 1-yr Target	2005-2006 Estimate	2006-2007 1-yr Target	2007-2008 2-yr Target
Environmental and Utility Services CSA delivers quality Capital Improvement Program (CIP) projects on-time and on-budget	1. % of CIP projects delivered* within 2 months of approved baseline schedule	85%	85%	86% (18/21)	85%	85%
	2. % of CIP projects that are completed** within the approved baseline budget	90%	90%	82% (14/17)	90%	90%
	3. project delivery costs (exclusive of city-wide overhead) as % of total construction cost for completed projects with construction costs:					
	less than \$500,000-	31%	31%	28%	31%	31%
	between \$500,000 and \$3M-	23%	23%	26%	23%	23%
	greater than \$3M-	15%	15%	10%	15%	15%
	Total (all construction costs)-			25%		
	4. % of operations and maintenance divisions rating new or rehabilitated capital facilities as being functional and sustainable after first year of use	80%	80%	80%	80%	80%
	5. % of customers rating new or rehabilitated CIP projects as meeting established goals (4 or better based on a scale of 1-5)	85%	85%	85%	85%	85%

#### Notes:

\* Projects are considered to be "delivered" when they are available for their intended use.

\*\* Projects are considered to be "completed" when final cost accounting has occurred and the project has been accepted.

In 2005-2006, the Environmental and Utility Services CSA delivered an estimated 86% of projects within two months of the approved baseline schedule, which exceeds the target of 85%. This CSA has seen a steady improvement in its on-time delivery of capital projects in recent years as staff continues to address issues that may impact timely project delivery. Project teams remain proactive at identifying potential impediments during the early stages of project development and work to resolve these issues as quickly as possible so as to minimize their impact on project schedules. In addition, project teams conduct regular ongoing coordination meetings during the project life cycle to ensure that unforeseen issues that do arise are addressed in a timely fashion.



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### **Performance Measures (Cont'd.)**

Project delays that do occur are primarily related to required coordination with outside agencies as well as unforeseen construction related delays. More recently, the schedules for several projects have been impacted by unseasonably wet weather that has caused construction delays as crews wait for construction sites to dry out.

An estimated 82% of accepted projects were delivered within their baseline budget amount, which is near the target of 90%. The CSA continues its effort to improve the cost estimating process in an effort to meet the performance target. Additional cost tracking tools have been developed through the City's Capital Project Management System (CPMS), which allow project management staff to effectively track project costs on an ongoing basis and ensure that all expenditures are appropriate and remain within budgeted levels. Instances in which projects do exceed the baseline budget can be attributed to bidding irregularities, redesign costs and additional staff costs needed to resolve unforeseen construction issues.

Preliminary delivery cost data for 2005-2006 completed (accepted) projects are either near or below targeted levels. The City has been transitioning to a new accounting system during the last few years, which improves staff's ability to account for project expenditures by phases and allows for delivery costs to be calculated more accurately. In addition, staff continues to identify opportunities to make improvements to project delivery in order to maintain delivery costs at or near targeted levels. Since the average delivery cost of 25% demonstrates good performance, no changes in the delivery costs targets for 2006-2007 or 2007-2008 are recommended.

The CSA is continuing its efforts to conduct operations, maintenance, and customer satisfaction surveys on completed projects. For each measurement, staff is conducting surveys on a representative sample of projects that are completed during the year. In the case of the operations and maintenance survey measurement, staff is conducting surveys on projects that have been completed and in use for at least one year. Preliminary survey results for the operations, maintenance and customer satisfaction measurements indicate the CSA is delivering projects that meet established goals at targeted levels. Staff is continuing to analyze survey results to determine improvements that could be incorporated into future projects. Staff is also evaluating more effective methods of conducting these surveys, including improvements to the structure and format as well as the use of web-based surveys, which will yield a higher percentage of returned surveys.

Staff is continuing to collect data on performance measurements and will be reporting final year-end results in the fall.

## Capital Program Summary by City Service Area

### Environmental and Utility Services

	2006-2007 Budget	2007-2011 CIP Budget	Total Budget (All Years)	Start date	End date
<b><u>Sanitary Sewer System</u></b>					
<b><u>Capital Program</u></b>					
30" Old Bayshore Supplement		3,907,000	3,907,000	3rd Qtr. 2008	2nd Qtr. 2010
60" Brick Interceptor, Phase 1B	290,000	290,000	35,905,382	3rd Qtr. 2001	2nd Qtr. 2006
84" RCP Interceptor, Phases VB, VIB, VII, & VIIA	2,037,000	9,050,000	19,106,000	3rd Qtr. 2004	1st Qtr. 2007
Almaden Road Supplement Sewer Rehabilitation (North)		2,031,000	2,031,000	3rd Qtr. 2009	2nd Qtr. 2011
Almaden Road Supplement Sewer Rehabilitation (South)		2,333,000	2,333,000	3rd Qtr. 2009	2nd Qtr. 2011
Alum Rock Avenue Sanitary Sewer Rehabilitation	1,000,000	1,000,000	1,000,000	3rd Qtr. 2006	2nd Qtr. 2007
Central Interceptor Sewer Rehabilitation		2,696,000	2,696,000	3rd Qtr. 2009	2nd Qtr. 2011
Cheney Drive Sanitary Sewer Rehabilitation	500,000	500,000	500,000	3rd Qtr. 2006	2nd Qtr. 2007
City Hall Debt Service Fund	31,000	159,000	159,000	N/A	N/A
East San José	19,000	19,000	4,206,000	3rd Qtr. 2003	3rd Qtr. 2006
Edenvale Sanitary Sewer Supplement, Phases VA and VB	18,919,000	28,988,000	30,952,000	2nd Qtr. 2001	3rd Qtr. 2008
Fee Administration	101,000	558,000	*	Ongoing	Ongoing
Flow Monitoring Program (Master Planning)	2,150,000	6,520,000	*	Ongoing	Ongoing
Forest-Rosa Sewer	330,000	346,000	7,134,000	3rd Qtr. 2004	1st Qtr. 2007
Fourth Interceptor, Phases VI & VII	3,063,000	17,702,000	73,013,000	3rd Qtr. 2006	2nd Qtr. 2010
Geographic Information System (GIS)	37,000	195,000	*	Ongoing	Ongoing
Hobson-Walnut Area	207,000	207,000	1,175,000	1st Qtr. 2005	1st Qtr. 2007
Inflow and Infiltration Reduction	2,600,000	7,500,000	*	Ongoing	Ongoing
Julian-Sunol Supplement Sewer Rehabilitation		2,150,000	2,150,000	3rd Qtr. 2009	2nd Qtr. 2011
Miscellaneous Projects	1,828,000	4,908,000	*	Ongoing	Ongoing
Miscellaneous Rehabilitation Projects	4,500,000	10,000,000	*	Ongoing	Ongoing
Monterey-Riverside Sewer, Phase V		1,574,000	8,855,000	3rd Qtr. 2007	2nd Qtr. 2009
Payments to West Valley Sanitation District	10,000	50,000	*	Ongoing	Ongoing
Permit Review and Inspection for Outside Agencies	75,000	375,000	*	Ongoing	Ongoing
Preliminary Engineering	725,000	3,760,000	*	Ongoing	Ongoing
Program Management	410,000	2,155,000	*	Ongoing	Ongoing
Public Works Engineering Services Equipment (Materials Lab)	37,000	195,000	*	Ongoing	Ongoing
Rosemary Area	80,000	80,000	1,223,000	3rd Qtr. 2002	4th Qtr. 2006

# *Capital Program Summary by City Service Area*

## **Environmental and Utility Services**

	2006-2007 Budget	2007-2011 CIP Budget	Total Budget (All Years)	Start date	End date
<b><u>Sanitary Sewer System (Cont'd.)</u></b>					
<b><u>Capital Program</u></b>					
Union/Almaden Oak Sanitary Sewer Rehabilitation		1,544,000	1,544,000	3rd Qtr. 2009	2nd Qtr. 2011
Willow-Union Trunk Sewer	423,000	442,000	2,331,000	3rd Qtr. 2004	2nd Qtr. 2007
<b>Total: Construction/Non-Construction</b>	<b>39,372,000</b>	<b>111,234,000</b>			
Ending Fund Balance	5,795,526	1,627,526 **			
<b>Total: Sanitary Sewer System Capital Program</b>	<b>45,167,526</b>	<b>112,861,526 **</b>			
<b><u>Storm Sewer System</u></b>					
<b><u>Capital Program</u></b>					
Albany-Kiely Storm Drainage Improvement, Phase III & IV	69,000	3,017,000	5,543,000	3rd Qtr. 2006	2nd Qtr. 2009
Chateau Drive Storm Drain Improvement, Phase I & II	650,000	1,314,000	1,390,000	3rd Qtr. 2005	2nd Qtr. 2007
City Hall Debt Service Fund	10,000	54,000	54,000	N/A	N/A
Fee Administration	54,000	300,000	*	Ongoing	Ongoing
Flow Monitoring System	9,000	45,000	*	Ongoing	Ongoing
Geographic Information Systems	8,000	40,000	*	Ongoing	Ongoing
Master Planning	10,000	50,000	*	Ongoing	Ongoing
Minor Neighborhood Storm Drain Improvements	400,000	700,000	*	Ongoing	Ongoing
Miscellaneous Projects	225,000	1,225,000	*	Ongoing	Ongoing
Outfall Rehabilitation - Capital	300,000	300,000	300,000	3rd Qtr. 2006	2nd Qtr. 2007
Permit Review and Inspection for Outside Agencies	25,000	125,000	*	Ongoing	Ongoing
Preliminary Engineering	80,000	290,000	*	Ongoing	Ongoing
Program Management	80,000	290,000	*	Ongoing	Ongoing
Ross-Guadalupe Storm Drain Improvements		401,000	401,000	3rd Qtr. 2009	4th Qtr. 2010
Storm Drainage Improvements - Special Corridors	500,000	500,000	1,002,000	3rd Qtr. 2005	2nd Qtr. 2007
Storm Pump Station Rehab & Replacement	1,249,000	1,249,000	*	Ongoing	Ongoing
Willow Glen-Guadalupe, Phase II & III		1,560,000	3,753,704	3rd Qtr. 2008	2nd Qtr. 2010
<b>Total: Construction/Non-Construction</b>	<b>3,669,000</b>	<b>11,460,000</b>			
Ending Fund Balance	357,560	377,560 **			

## *Capital Program Summary by City Service Area*

### **Environmental and Utility Services**

	2006-2007 Budget	2007-2011 CIP Budget	Total Budget (All Years)	Start date	End date
<b>Storm Sewer System (Cont'd.)</b>					
<b>Capital Program</b>					
<b>Total: Storm Sewer System Capital Program</b>	<b>4,026,560</b>	<b>11,837,560 **</b>			
<b>Water Pollution Control</b>					
<b>Capital Program</b>					
Alternative Disinfection	6,300,000	6,300,000	6,818,000	2nd Qtr. 2004	3rd Qtr. 2008
Bio-solids Master Plan	1,000,000	1,000,000	1,000,000	3rd Qtr 2006	2nd Qtr 2008
City Hall Debt Service Fund	8,300	42,300	42,300	N/A	N/A
Dissolved Air Flotation Pressure Retention Tank & Valves		804,000	1,607,000	2nd Qtr. 2005	4th Qtr. 2016
Equipment Replacement	1,525,000	7,625,000	*	Ongoing	Ongoing
Filtration Action Plan - Valve Replacement		6,600,000	8,600,000	4rd Qtr 2007	2th Qtr 2013
Fire Line Replacement	350,000	750,000	750,000	3rd Qtr 2006	2nd Qtr 2009
Inactive Lagoons Bio-Solids Removal Study	25,000	125,000	163,000	3rd Qtr. 2002	2nd Qtr. 2008
Land Management & Improvements	150,000	450,000	20,840,000	2nd Qtr. 1997	2nd Qtr. 2009
M5, Ring Buss, & Cable Replacement	1,200,000	8,200,000	8,200,000	3rd Qtr 2006	2nd Qtr 2008
Payment for Clean Water Financing Authority Trustee	82,000	410,000	*	Ongoing	Ongoing
Plant Electrical Reliability		55,000,000	56,777,000	3rd Qtr. 2008	2nd Qtr. 2015
Plant Infrastructure Improvements	5,827,000	32,038,000	*	Ongoing	Ongoing
Reserve for Bio-solids Plans		28,000,000	85,000,000	N/A	N/A
Reserve for Equipment Replacement	5,000,000	5,000,000	5,000,000	N/A	N/A
Reserve for GRS Inc. Agreement	1,000,000	1,000,000	1,000,000	3rd Qtr. 2002	2nd Qtr. 2008
Reserve for Rate Studies	200,000	200,000	200,000	N/A	N/A
Revised South Bay Action Plan - SBWR Extension	391,000	1,955,000	*	Ongoing	Ongoing
Scum Digestion	250,000	1,000,000	1,000,000	3rd Qtr 2006	2nd Qtr 2008
State Revolving Fund Loan Repayment	4,464,000	22,320,000	86,025,000	3rd Qtr. 1998	2nd Qtr. 2019
Transfer to Clean Water Financing Authority Debt Service Payment Fund	6,806,000	41,985,000	109,983,000	2nd Qtr. 1996	4th Qtr. 2020
Unanticipated/Critical Repairs	250,000	1,250,000	*	Ongoing	Ongoing
WPCP Reliability Improvements	2,009,000	2,009,000	88,821,000	2nd Qtr. 2003	2nd Qtr. 2008
Warehousing Facility Addition		500,000	500,000	2nd Qtr 2008	4th Qtr 2009

## *Capital Program Summary by City Service Area*

### **Environmental and Utility Services**

	2006-2007 Budget	2007-2011 CIP Budget	Total Budget (All Years)	Start date	End date
<b>Water Pollution Control (Cont'd.)</b>					
<b>Capital Program</b>					
<b>Total: Construction/Non-Construction</b>	<b>36,837,300</b>	<b>224,563,300</b>			
Ending Fund Balance	19,475,405	13,535,405 **			
<b>Total: Water Pollution Control Capital Program</b>	<b>56,312,705</b>	<b>238,098,705 **</b>			
<b>Water Utility System</b>					
<b>Capital Program</b>					
Advance System Design	320,000	1,700,000	*	Ongoing	Ongoing
Bon Bon Drive Main Replacement		65,000	1,000,000	3rd Qtr. 2010	3rd Qtr. 2012
Castleton Drive Main Replacement		900,000	900,000	3rd Qtr. 2010	2nd Qtr. 2012
City Hall Debt Service Fund	4,100	20,500	20,500	N/A	N/A
Forestwood Drive Main Replacement	965,000	1,000,000	1,000,000	3rd Qtr. 2006	3rd Qtr. 2007
Infrastructure Improvements	400,000	2,200,000	*	Ongoing	Ongoing
Loan Repayment to Sewage Treatment Plant Connection Fee Fund	700,000	3,500,000	6,650,000	3rd Qtr. 2004	3rd Qtr. 2013
Major Facilities Fee Administration	15,000	75,000	*	Ongoing	Ongoing
Master Plan Engineering	60,000	370,000	*	Ongoing	Ongoing
Meter Installations	300,000	1,560,000	*	Ongoing	Ongoing
Montague Turnout		325,000	325,000	3rd Qtr. 2010	1st Qtr. 2014
Network System Flow Improvements	25,000	57,000	*	Ongoing	Ongoing
Nortech Parkway East Loop Main		750,000	750,000	3rd Qtr. 2007	2nd Qtr. 2009
North First Street Parallel Main		1,675,000	3,574,087	3rd Qtr. 2008	2nd Qtr. 2010
Norwood Pump Station Replacement	50,000	850,000	850,000	3rd Qtr. 2006	2nd Qtr. 2008
Preliminary Engineering	45,000	259,000	*	Ongoing	Ongoing
Reserve for System Growth Related Projects	1,400,000	1,400,000	1,400,000	N/A	N/A
Reserve for System Rehabilitation/Replacement	1,607,000	1,934,000	1,934,000	N/A	N/A
Reservoir Seismic Retrofit	100,000	100,000	305,000	Multi-phase	Multi-phase
Security Improvements	150,000	150,000	436,000	3rd Qtr. 2004	2nd Qtr. 2007
Service Installations	350,000	1,850,000	*	Ongoing	Ongoing
System Maintenance/Repairs	430,000	2,350,000	*	Ongoing	Ongoing



## *Capital Program Summary by City Service Area*

### **Environmental and Utility Services**

	2006-2007 Budget	2007-2011 CIP Budget	Total Budget (All Years)	Start date	End date
<b><u>Water Utility System</u></b> (Cont'd.)					
<b><u>Capital Program</u></b>					
Villa Vista Reservoir Rehabilitation	40,000	250,000	250,000	3rd Qtr. 2006	1st Qtr. 2008
Water Valve Rehabilitation	175,000	175,000	350,000	3rd Qtr. 2005	3rd Qtr. 2007
<b>Total: Construction/Non-Construction</b>	<b>7,136,100</b>	<b>23,515,500</b>			
Ending Fund Balance	1,815,298	2,095,898 **			
<b>Total: Water Utility System Capital Program</b>	<b>8,951,398</b>	<b>25,611,398 **</b>			
 <b>CSA Total: Construction/Non-Construction</b>	 <b>87,014,400</b>	 <b>370,772,800 **</b>			
Ending Fund Balance	27,443,789	17,636,389 **			
<b>CSA Total:</b>	<b>114,458,189</b>	<b>388,409,189 **</b>			

\* Total Budget information is not provided due to the ongoing nature of this project.

\*\*The 2006-2007 through 2009-2010 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of same funds.